



Department of Environmental Management

Spotlight on Environmental Protection

Did you know?

- Approximately 581,000 underground storage tanks (USTs) are in use nationwide for the storage of petroleum products or hazardous substances.
- In Rhode Island, more than 2,500 USTs containing petroleum products or hazardous materials are registered as active tanks.

During calendar year 2013, UST Program inspectors:

- Completed more than 200 compliance inspections at active facilities
- Oversaw the installation of 10 new facilities, piping upgrades at eight facilities and cathodic protection upgrades at two facilities
- Monitored the closures of more than 190 tanks.

Underground Storage Tanks

The next time you stop by your neighborhood gasoline station to “fill ‘er up,” try to spot the massive tanks that store the thousands of gallons of motor fuel that your station dispenses weekly. Can you see them? No? Are they located behind the building? No? That’s because these tanks are most likely buried on the property, perhaps located just a few feet from where you happen to be standing.

The greatest environmental threat from a leaking underground storage tank system is that its contents can seep into the soil and contaminate groundwater, the source of drinking water for nearly half of all Americans. Acknowledging the potential for an environmental disaster, the United States Environmental Protection Agency created the Office of Underground Storage Tanks in 1985 in response to a congressional mandate to develop and implement a regulatory program for UST facilities.

UST facilities include businesses, municipalities and residential properties that store petroleum products (including heating oil and motor fuels) and hazardous materials (such as solvents) in tanks that are located underground. In Rhode Island, the Department of Environmental Management’s UST Management Program is responsible for overseeing the state’s UST facilities. As you might guess, gasoline stations comprise a large percentage of Rhode Island’s UST facilities. Likewise, oversight of these stations consumes a great deal of time.



UST facility upgrade in West Greenwich. Upgrades at the facility included the installation of a diesel tank, piping, sumps and dispenser units .



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A typical facility inspection includes:

- Visual examination of the condition of UST system product-delivery structures, such as the fuel dispensers
- Visual examination of spill prevention and overfill protection structures, such as sumps and spill buckets
- Evaluation of testing data generated by others that evaluate the structural integrity of the USTs and UST piping
- Assessment of the facility's continuous monitoring system that can signal when a leak has occurred
- Review of the facility's inventory recordkeeping
- Confirmation that facility's staff are properly trained and certified to operate a UST facility



Inspector Theodore Peters reviews his notes while inspecting UST system components.

UST Management Program's personnel work hard to help UST facility owners remain in compliance with the UST regulations. More than 600 active UST facilities that dispense motor fuels are located in Rhode Island, and UST compliance inspectors must visit each active facility at least once every three years. This means that RIDEM's two full-time and one-part time compliance inspectors assess more than 200 facilities every year, assisting facility owners in identifying infrastructure and management practices that require correction.

Frank Vogel, a full-time UST inspector, finds that he consistently encounters several issues during facility inspections.

"Quite often I find that there is water in the sumps or that the liquid-level sensors within the sumps are set at the wrong height," he explains.

"Often the bulbs on the continuous monitoring system are burned out, which can lead to the operator failing to notice that the system is signaling that there is a problem. At times I find that inventory control has not been completed fully – the operator is collecting the daily data but is not evaluating whether the data point to a loss of product."

Thanks to a federal grant, UST inspectors in the field will soon set aside their clipboards in favor of state-of-the-art electronic tablets. Facility inspectors will use the tablets to record their observations in the field and the tablets will interact with the UST Program's database to automatically generate site-specific inspection reports and other documentation.

"Customer service is a top priority, and we are always working to make our program more efficient," states Kevin Gillen, UST Program supervisor.

Whether armed with a clipboard or tablet, the inspectors always have the UST Management Program's primary objective in mind: release prevention – protecting your neighborhood, along with all other neighborhoods in Rhode Island.